

What is claimed is:

1. A docking apparatus for printed circuit boards comprising:

a cassette housing, having a housing base, a housing cover and a housing wall, wherein said housing base and said housing wall are disposed relative to each other so as to define a housing cavity for containing a printed circuit card and wherein said housing wall includes a cable opening disposed so as to be communicated with said housing cavity;

a housing bezel, disposed relative to said cassette housing so as to be associated with said cable opening and translatable therein, said housing bezel in electrical communication with said printed circuit card and translatable therewith; and

an EMC sealing device disposed between said housing bezel and said cassette housing, said EMC sealing device configured to provide a movable EMC seal proximate said cable opening while still allowing airflow therethrough while covering a portion of said cable opening created between said housing and said housing bezel upon translation of said bezel.

2. The docking apparatus according to claim 1, wherein said EMC sealing device includes a plurality of openings to provide airflow to cool said printed circuit card.

3. The docking apparatus according to claim 1, wherein said EMC sealing device provides said EMC seal having electrical engagement with said cassette housing and said bezel that is in electrical contact with said printed circuit card, said printed circuit card is in electrical contact with said housing base, and said housing base is referenced to ground.

4. The docking apparatus according to claim 1, wherein said cassette housing, said bezel and said EMC sealing device are made from a metallic material.

5. The docking apparatus according to claim 1, wherein said EMC sealing device includes a first hinge plate and a second hinge plate pivotally coupled together to form a two piece hinge, said first hinge plate is pivotally coupled at a first end to said cassette housing while said second plate hinge is pivotally coupled at a second end opposite said first end to said bezel, said first and second hinge plates each configured with a plurality of openings to allow air flow therethrough while removably closing a gap formed between said housing wall and said bezel to form said EMC seal.

6. The docking apparatus according to claim 5, wherein said EMC sealing device is configured to be folded upon itself approaching a zero thickness in a folded condition while unfolding and extending to cover a gap created between said bezel and said housing wall when said card is extended to a plugged in condition.

7. The docking apparatus according to claim 6, wherein said gap corresponds to a distance traveled by said card.

8. The docking apparatus according to claim 6, wherein outboard ends defining said first and second hinge plates provide electrical contact with edges defining said housing base and cover to provide said EMC seal while still allowing airflow therethrough via said plurality of openings.

9. The docking apparatus according to claim 6, wherein said EMC sealing device is configured to form said EMC seal at said gap formed between said bezel and housing wall while still allowing airflow through said gap.

10. The docking apparatus according to claim 8, wherein said EMC sealing device further comprises:

at least one compressible contact extending from said outboard ends aligned with said edges defining said cable opening to make electrical contact therewith to form said EMC seal while allowing airflow in and out of said housing cavity.

11. The docking apparatus according to claim 6, wherein said plurality of openings are in coaction with a plurality of vents formed on a portion of said housing wall opposite said cable opening.

12. The docking apparatus according to claim 1, wherein said bezel includes a flange configured to electrically connect with said printed circuit card that is connected to said housing base referenced to ground

13. The docking apparatus according to claim 1, wherein said housing bezel and said cassette housing corresponding configured to be in slidable physical contact relative to each other.

14. A docking apparatus comprising:

a printed circuit card;

a cassette housing having a mounting device and defining a housing cavity for movably containing said printed circuit card, said mounting device is disposed within said housing cavity so as to slidably contain said printed circuit card within said housing cavity; and

housing bezel, disposed relative to said cassette housing in a cable opening thereof so as to be associated with said cable opening and translatable therein, said housing bezel in electrical communication with said printed circuit card and translatable therewith to engage said printed circuit card with a printed circuit board via said mounting device; and

an EMC sealing device disposed between said housing bezel and said cassette housing, said EMC sealing device configured to provide a movable EMC seal proximate said cable opening while still allowing airflow therethrough while covering a portion of said cable opening created between said housing and said housing bezel upon translation of said bezel.

15. The docking apparatus according to claim 14, wherein said EMC sealing device is a metallic material configured to allow said card extraction and insertion while still making a suitable ground contact.

16. The docking apparatus according to claim 14, wherein said EMC sealing device is configured for use in differently configured housing bezels.

17. The docking apparatus according to claim 14, further comprising:

a plurality of vents formed on a side wall of said housing coacting with a plurality of openings configured in said EMC sealing device and in the top of said housing bezel to aid air flowing through said housing.

18. The docking apparatus according to claim 14, wherein said EMC sealing device includes a first hinge plate and a second hinge plate pivotally coupled together to form a two piece hinge, said first hinge plate is pivotally coupled at a first end to said cassette housing while said second plate hinge is pivotally coupled at a second end opposite said first end to said bezel, said first and second hinge plates each configured with a plurality of openings to allow air flow therethrough while movably closing a gap formed by translation of said bezel in said cable opening to form said EMC seal.

19. The docking apparatus according to claim 18, wherein said EMC sealing device is configured to be folded upon itself approaching a zero thickness in a folded condition while unfolding and extending to cover a gap created between said bezel and said housing wall when said card is extended to a plugged in condition.

20. The docking apparatus according to claim 18, wherein outboard ends defining said first and second hinge plates provide contact with edges defining said cable opening to provide said EMC seal while still allowing airflow therethrough via said plurality of openings.

21. An apparatus for providing a thermal protection and electromagnetic conduction seal in a docking apparatus having a printed circuit card disposed therein for connection to a system backplane, said apparatus comprising:

a conductive cassette housing, having a housing base, a housing cover and a housing wall, wherein said housing base and said housing wall are disposed relative to each other so as to define a housing cavity for containing a printed circuit card and wherein said housing wall includes a cable opening disposed so as to be communicated with said housing cavity and a connector opening for a connector exposed in said connector opening for mating and connection with the system backplane;

a housing bezel, wherein said housing bezel is disposed relative to said cassette housing so as to be slidably associated with said cable opening, wherein said housing bezel including a plurality of openings in the top of said housing bezel for the flow of cooling air;

an EMC sealing device providing an EMC seal between said cassette housing and said housing bezel, said EMC sealing device configured to provide thermal protection via openings therein and an electromagnetic conduction seal to said printed circuit card translatable with said housing bezel; and

a plurality of vents formed on one side of said wall coacting with said plurality of openings in the top of said housing bezel and said openings of said EMC sealing device to aid air flowing through said housing and providing electromagnetic shielding for said circuit card positioned within.

22. The apparatus according to claim 21, wherein said plurality of vents are formed on a side distal from said plurality of vents formed in said housing bezel.